

Inventor: Iwamoto
Serial No.: 09/543,628
Art Unit: 1712

Patent
Army Dkt. No. 664.01-US1

electrons through the component? Or would the applicant need to recite that the component is coupled with a printed circuit board? The undersigned Attorney of Record, however, invites the Examiner to contact her by phone or E-mail if this point of contention is not resolved by this response and therefore needs to be discussed further.

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35 USC § 112/SPECIFICATION

The Examiner rejects Claims 1-9 as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or use the invention, specifically, that the "first polymer" was not described as to how it is made. The Applicant respectfully disagrees with the rejection based on the interpretation of the Enablement Requirement.

The Enablement Requirement of 35 USC § 112, with regard to the "make and use" provision, does not require that a working example be presented if the invention is otherwise disclosed in such a manner that one skilled in the art will be able to practice it without an undue amount of experimentation. *In re Long*, 368 F. 2d 892, 151 USPQ 640 (CCPA 1966); *In re Borokowski and Van Venrooy*, 422 F.2d 904, 164 USPQ 642 (CCPA 1970). In the present application, independent claim 1 recites "an electronic device comprising a component that comprises a polymer that comprises a monomer having the formula...". Whether the person of ordinary skill in the art is skilled in the field of semiconductor design or in the field of polymer chemistry, it should be clear to that person, without undue experimentation, if the polymer in question comprises a monomer of the formula shown in independent Claim 1, especially given the fact that most polymers are either purchased from a chemical company or University (who should provide clear and descriptive chemical composition data) or designed in lab (where the person formulating the polymer should be able to easily determine, certainly without undue experimentation, the monomer composition of the polymer).

Further, how the polymer is made or produced is secondary to the scope of independent claim

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1, which recites an "electronic device comprising a component that comprises a polymer that comprises a monomer of the formula...", which does not appear to reasonably require a working example on how to make the polymer; as opposed to "A polymer comprising a monomer of the formula", which would appear to need working examples on how to produce the polymer in question.

In response to the Examiner's question in full paragraph 1 on page 3 of the Office Action, the reaction products of the monomers listed would form the "first polymer" given the definition of "monomer" in the specification - "any chemical compound that is capable of forming a covalent bond with itself or a different chemical compound in a repetitive manner", and since the combinations of the monomers would all comprise a monomer of the formula shown in independent claim 1 (with the exception of oxybiscyclopentene oxide/bisphenol A epoxy).

In response to the Examiner's question in full paragraph 2 on page 3 of the Office Action, the group selected from oxybis(cyclopentene oxide), oxydianiline, Bisphenol A glycidyl epoxy, and bis 3,4 epoxycyclohexylmethyl adipate is referred to on page 8 of the Original Specification, lines 3-7. All of these compounds are listed in the specification on page 8 as specific examples for the R_a, R_b and R_c groups.

The undersigned Attorney of Record requests that the Examiner contact her by phone or E-mail to discuss any other enablement or description issues that arise because of or in addition to this response.

35 USC § 102

Claims 1 and 6-9 were rejected under 35 USC § 102(b) as being anticipated by Kurihara et al. (US 4,366,062). The applicant disagrees.

Claim 1 of the present application recites "an electronic device comprising a component that comprises a polymer that comprises a monomer having the formula...". Claim 1 is clearly related to the art/field of electronic devices (as is also stated in the Field of the Invention Section on page 1 of the Original Specification) and recites an electronic device that comprises a component that

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comprises a polymer that comprises a monomer having the formula of that shown in Claim 1.

Kurihara et al. (Kurihara) teaches a method of selectively separating a water-soluble useful material from a solution by using a reverse osmosis process. Further, claim 1 of Kurihara recites the same method as already stated and further incorporates an isocyanurate structure (Formula I) as a component (barrier layer) in a reverse osmosis membrane (along with a porous substrate). Kurihara does not disclose or teach in claim 1 or any of the dependent claims "an electronic device comprising a component that comprises a polymer that comprises a monomer having the formula" shown in Claim 1 of the present application. Therefore, Kurihara does not anticipate Claim 1 of the present application, nor does Kurihara anticipate claims 6-9 of the present application, especially given that they are dependent on Claim 1 of the present application.

Claims 1 was rejected under 35 USC § 102(b) as being anticipated by Hitachi Chem Co LTD (JP 01225641 A). The applicant disagrees.

Claim 1 of the present application recites "an electronic device comprising a component that comprises a polymer that comprises a monomer having the formula...". Hitachi Chem Co LTD (Hitachi) discloses a monomer comprising a base structure of triglycidyl isocyanurate that is reacted with bisphenol-A or tetrabromo bisphenol-A (to presumably form substituent groups from the isocyanurate base structure). Hitachi does not teach or disclose that the isocyanurate monomer is then used as a monomer in polymer formation. Hitachi actually discloses that the monomer is physically added to (not chemically reacted with) an epoxy resin. The monomer in Hitachi is not used in polymer formation, but is instead used as an additive to an already existing polymer or resin. Based on this argument, among others, Claim 1 of the present application is not anticipated by the disclosure presented by Hitachi given that the present application is directed to an "electronic device comprising a component that comprises a polymer that comprises a monomer having the formula..." shown in Claim 1.

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CHANGE OF FIRM NAME

For your immediate reference, the firm of Fish & Associates, LLP – which may have been recently listed on the correspondence for the Applicant – has merged with the law firm of Rutan & Tucker, LLP to collectively become the law firm of Rutan & Tucker, LLP as of January 1, 2002. Completed Change of Correspondence Address forms for this matter, showing the new address listed below, will be submitted this month to the USPTO. New Power of Attorney forms will not need to be filed, however, since the Attorneys of Record have not changed through this merger.


REQUEST FOR ALLOWANCE

Claims 1-9 are pending in this application. The applicant requests allowance of all pending claims.

Respectfully submitted,

Rutan & Tucker, LLP

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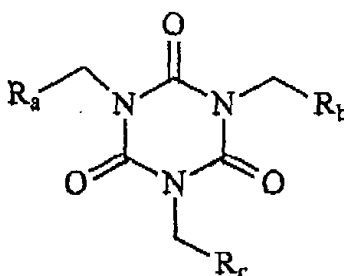
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MARKED UP VERSION SHOWING AMENDMENTS/CHANGES

We claim:

1. (Amended) An electronic device comprising [a first polymer derived from] a component that comprises a polymer that comprises a monomer having the formula:



- wherein each of R_a, R_b, R_c are independently selected from the group consisting of: a hydroxylated aliphatic side chain; an epoxy glycol; an ethoxy ether; a glycol ether; an adduct of glycol ether or a bisphenol glycol epoxy; an adduct of an epoxy glycol and an amine such as oxydianiline to form a hydroxylamine; an adduct of a glycol ether and a cycloaliphatic epoxy; and an adduct of hydroxyethyl side chain and a cycloaliphatic epoxy.
2. The device of claim 1, wherein the first polymer further comprises an oxybis(cyclopentene oxide) group.
3. The device of claim 1 wherein the first polymer further comprises an oxydianiline group.
4. The device of claim 1 wherein the first polymer further comprises a bisphenol A glycidyl Epoxy group.
5. The device of claim 1 wherein the first polymer further comprises a bis 3,4 epoxycyclohexylmethyl adipate group.

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6. The device of claim 1 wherein the first polymer further comprises a trishydroxy-ethylisocyanurate.
7. The device of claim 1 wherein the electronic device further comprises an interface between the first polymer and a substrate.
8. The device of claim 1 wherein the electronic device comprises an interface between the first polymer and a second polymer.
9. The device of claim 8 wherein the first polymer and the second polymer are chemically different from one another.